CMS Simulation (LHE) 13 TeV Fraction of events / 1 GeV $pp \rightarrow h \rightarrow 2n_{1} \rightarrow 2n_{D} + 2~\gamma_{D} \rightarrow 2n_{D} + 4\mu$ $m_h^{} = 125 \; \text{GeV}, \; m_{_{D_1}^{}}^{} = 10 \; \text{GeV}, \; m_{_{D_2}^{}}^{} = 1 \; \text{GeV}$ 0.12 $m_{\gamma_2} = 0.3 \text{ GeV}, c\tau_{\gamma_2} = 1. \text{ mm}$ 1st dark photon (leading p_T) 0.1 2nd dark photon 80.0 0.06 0.04 0.02 10 20 30 40 50 60 80 90 100 0